

Road Construction and Maintenance

- V002 Pothole Patching**
Covers fixing potholes by using a tank/kettle. The video also covers patching by applying emulsions and aggregate in alternate layers until the hole is filled.
- V006 Crack and Joint Sealing**
This video deals with utilizing asphalt emulsions from a kettle to fill cracks. A portion of the video deals with routing cracks and installing backer rod.
- V011 Safe Mowing Procedures**
Covers IDOT's where, when, and why to mow the right-of-way. It also covers noxious weeds and safety when mowing.
- V013 Shoulder Repair and Ditch Cleaning**
Covers repairing low and high shoulders, and the cleaning of ditches.
- V017 Tire Chip Feature**
A demonstration of an experiment using tire chips as a road base insulator to protect a highway from frost damage.
- V020 Hydrated Lime - Key to Improved Pavements**
The addition of hydrated lime is shown to improve durability and lower costs of asphalt while providing a more permanent bond.
- V021 BOMAG: In-Place Recycling**
1. Detailed in-place recycling shown using Bomag equipment.
2. Detailed recycling with asphalt emulsions.
- V025 Partial Depth Patching**
Covers the step-by-step procedure for partial depth patching of a flexible pavement, utilizing bituminous patch material.
- V026 Handling Pesticides Safely-Herbicides**
Discusses the use of herbicides as an effective substitute to mowing and the safe handling of chemicals. Comes with a brochure of how to start a spray program.
- V027 Blading Unpaved Roads**
Shows techniques to correct various problems associated with gravel roads.
- V030 Seal Coating: A Matter of Science & Skill**
This tape describes the proper setup and application of seal coating operation.
- V032 Soil Stabilization: Selecting a Modifier**
The characteristics and suggested uses of lime, lime with fly ash, cement, and bituminous materials and soil stabilizers.
- V044 Geotextiles Installation on Gravel Roads**
Discusses the installation and maintenance of geotextile fabrics on low volume roads.
- V045 Problems with Gravel Roads**
3 part video that covers gravel road maintenance.
Part 1: Discusses the importance of considering the environmental conditions and the materials available when planning to rework a gravel road.
Part 2: Covers the causes, prevention and correction of problems that occur with gravel roads.
Part 3: Shows maintenance equipment and blading techniques.
- V046 Chip Seal Applications**
3 part video that covers applying chip seals. This is an excellent training or refresher video for those planning a chip seal operation.
Part 1: Shows preliminary concerns, materials, equipment, surface preparation, weather requirements, and application rates for chip seal operations.
Part 2: Discusses chip seal procedures, binder application, chip spreading and roller operation.
Part 3: Details chip seal problems that can occur and their solutions.

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- V047 Asphalt Paving Inspection**
3 part video that covers asphalt paving inspection.
Part 1: Preliminary Responsibilities
Part 2: Paving Operation
Part 3: Problems
- V057 Utility Cut Repair: Doing it Right**
The objective of this videotape is to increase the quality of workmanship associated with making and repairing utility cuts. The video shows possible causes for failed repairs and procedures used in Minnesota for conducting utility cut repairs.
- V059 Concrete Rubblization and Asphalt Overlay of I-57**
This informative videotape explains the rubblization process and demonstrates its application on an Interstate Highway project.
- V064 The Importance of Road Drainage**
The importance of surface and drainage maintenance and the inspection of drainage systems are discussed. Topics also discussed include environmental issues associated with road drainage, federal and state permits and liability for elements of design and maintenance.
- V075 Pothole Repair: Proven Practices**
This video provides an effective overview of the causes of potholes and repair methods. Guidelines for three repair categories are shown: permanent patching, semi-permanent patching and temporary patching.
- V079 Protect Our Pavement: PREVENTIVE Maintenance**
This video provides information on the advantages of preventative maintenance.
- V095 Common Maintenance Problems/Corrections**
Identifies main causes of most road maintenance problems, discusses importance of doing maintenance tasks correctly.
- V097 Reshaping Earth and Gravel Shoulders**
This video shows the proper procedures for reshaping earth and gravel shoulders to correct shoulder drop-off, rutting, buildup of materials, and excessive weed growth to maintain a safe shoulder.
- V098 Base and Sub-base Repair**
This video shows a procedure for repair of base and sub-base that will save money and insure longer-lasting repairs. It covers materials and equipment needed.
- V100 Utility Cuts in Paved Roads**
This is a very good video detailing the utility cut operation from the importance of communication among interested parties during the planning stage to finished pavement repair.
- V102 The Diamond Advantage in Highway Grinding**
This video demonstrates the cost and safety benefits of Diamond grinding.
- V103 Bituminous Seal Coat**
Preliminary checks and equipment. Surface preparation and tack coats. Delivery of hot-mix paving, compaction, and final product acceptance.
- V105 Fit To Be Tied: Retrofitting PCC Pavement with Dowel Bars, Dowel Bar Insertion for Load Transfer at Mid Panel Crack, Retrofitted Load Transfer Devices**
This video illustrates cost effective techniques for installing dowel bars in PCC pavements.
- V110 Stockpile Recovery to Minimize Segregation**
This video shows how aggregates should be stockpiled to reduce segregation.
- V114 Effective Pavement Preservation by Identifying Distress Conditions, Causes and Cures**
This video provides a brief description of HMA and PCC pavement distresses. It also provides possible cures for each type of distress.
- V121 Ralumac I-474 Over Illinois River at Peoria**
This video is a microsurfacing demonstration under the trade name Ralumac over the Illinois River at Peoria, IL.

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- V122 Half-Smart Project US 36 Douglas County**
A one lift asphalt application with seal coat under the "Surface Maintenance At the Right Time" guidelines is demonstrated.
- V127 European Concrete Pavement: Michigan Paves the Way**
Michigan follows European techniques of constructing better concrete pavements.
- V128 Bituminous Paving Inspection**
5 part video that discussed bituminous paving inspection.
Part 1: Overview. Part one focuses on the basic information on bituminous paving and on the specific requirements for the different types of equipment used.
Part 2: Preparations. This part looks at surface repair work and other paving preparations, such as traffic control, joint and crack repair, and bond coat applications.
Part 3: Operations. Paving operations, mix delivery, pavement courses, paving inspections, inspections and other topics are covered in part three.
Part 4: Rolling. This part concentrates on joint construction, compaction requirements, rolling principles and procedures, density control, final surface checks and pavement markings.
Part 5 - Rubblization. This part covers preparations for rubblizing, the materials and equipment used, and the construction steps and related inspection concerns, and the measuring and documentation of the work.
- V131 Making Safer Roads**
This video explains the importance of roadside safety and how to spot potential roadside hazards before they are involved in an accident.
- V133 Road Repair: Do the Right Thing at the Right Time**
How preventive road repair can save money compared to postponing work when it will cost more.
- V134 Asphalt Crack Treatment**
Video demonstrated how crack sealing can prolong asphalt pavement life.
- V143 In-SITU Cold Recycling**
Describes cold recycling method used by the New Mexico DOT.
- V144 Maintaining Asphalt Roads Blade Patching**
Illustrates the process of blade patching. Process involves cleaning and preparing surface to be patched; laying material; lifts; tapers, compaction; and final rolling and clean-up.
- V145 Erosion & Sediment Control Procedures and Practices for Construction Sites**
Demonstrates practices and procedures to follow at construction sites to control erosion and sediment.
- V148 Fabric Forms for Erosion Control**
This video shows uses for geotextile fabric forms in erosion control.
- V152 Surface Treatment**
A presentation on chip sealing. Includes information on emulsified asphalt properties, proper distributor oil temperature, spray bar height and operation, and rock spreading.
- V157 Finding Better Ways**
Description of SHRP's Research in four of the most common maintenance activities: pothole repair, spall repairs, crack sealing, and joint filling and sealing. These activities are presented in terms of extending repair life, speeding up repair time, and reducing motorist delay.
- V159 Asphalt Pavements that Perform**
This videotape briefly describes the advanced asphalt pavement technique "SUPERPAVE." This method incorporates: 1)performance based specifications, 2)new test methods, 3)computerized mixed design system.
- V161 Concrete Pavement Overlays**
General information and steps for constructing concrete overlay including design consideration, pre-overlay repairs, surface preparation, concrete placement and curing, joint sawing and sealing.
- V162 Early Opening of Full Depth Concrete Repair**
This tape explains the major considerations of early opening of full-depth concrete repairs. Planning, scheduling and evaluating work was also discussed.

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V163 Full Depth Repair of Jointed Concrete Pavements

Five major topics relating to repair of jointed concrete pavement: distress requiring full depth repair, field survey, transverse joint design, materials and repair procedures.

V164 Introduction to Rehabilitation of Highway Concrete

This is the first of a five tape series about rehabilitation of highway concrete. It introduces five activities: partial-depth repairs, full repairs, full slab replacement, concrete overlays on existing pavement and overlaying bridge decks.

V165 Partial Depth Repair of Concrete Pavement

Explains the materials and repair process of partial-depth repair of concrete pavement.

V179 Earth & Gravel Road Maintenance

5 Part Series

Part 1 - Forest Roads and the Environment: This tape provides information on how to keep in mind of the environment when repairing or maintaining environmental or low volume roads. Can be applied to local roads and streets.

Part 2 - Reading the Traveled Way: Explains the different types of problems that occur on the roads and what you can do about them, such as potholes, destroyed road templates, scour, loss of surfacing, damage to bridges, damage to fords, etc...

Part 3 - Reading Beyond the Traveled Way: Informs you how to properly identify problems pertaining to the environmental road and how to safely repair gullies, cracks and slumps, roadside ditch, etc...

Part 4 - Smoothing and Reshaping the Traveled Way: Properly explains how to smooth or reshape crowned, insloped, outsloped, and transition roads while keeping their shape.

Part 5 - Maintaining the Ditch and Surface Cross Drains: Shows you how to maintain ditches and cross drain, as well as shows you how to make water bars and why they are essential to the environmental and local roadways.

V180 Patch PCC with PCC

Demonstrates the steps involved in patching PCC with PCC.

V501 Flowable Fill

This video discusses the advantages of using flowable fill as an alternative to conventional backfilling with its main advantage being its ability to support with minimal settlement.

V524 Cutler Repaving History

The Cutler Repaver is demonstrated

V525 How to Prevent Segregation

What causes segregation in asphalt mixes and how to prevent it.

V526 Hot In-Place Recycling

Directed at Public Works Directors as a way to use asphalt in-place recycling to stretch their maintenance dollars.

V527 Road Oyl: Resin Modified Emulsion

Road Oyl is a non-water soluble, high bonding strength emulsion developed for use in pavement applications, dust control and erosion control.

V528 Building the Notched Wedge Joint

This video provides the viewer with the construction technique utilized to create the "Notched Wedge Joint" and its reported benefits including: enhanced pavement life and increased safety. This is a good video for design engineers, inspectors, and asphalt paving personnel.

V529 Cold In-Place Recycling

Describes the cold in-place recycling process, core sample testing, design recycling content procedures, and advantages and disadvantages.

V530 Full Depth Reclamation

Covers the applications and uses of full depth reclamation. Fully describes the short-term and long-term benefits.

V531 Hot In-Place Recycling

Video describes how hot in-place recycling can extend the existing asphalt life at half the cost of conventional recycling while protecting the environment.

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V532 Preventive Maintenance

The video provides a better understanding of the various factors, such as existing pavement condition and environmental effects, which must be taken into consideration when selecting the proper pavement for preventive maintenance. The tape also provides a general overview of the various preventive maintenance treatment options available for both rigid and flexible pavements.

V533 Principles in Quality Concrete

Discusses all phases of achieving high strength concrete, for selection of materials to placement and curing.

V546 Stabilization for Low Volume Roads

Six steps to soil stabilization for unpaved roads or as a base under pavement.

V548 NAPA Paving Practices for Quality

This video reviews safety practices pertaining to Hot Mix Applications in three stages including paver operations and roller operations. Covers different tasks performed by Laborers and tips on proper paving techniques.

*NOTE: Spanish version is also on this tape.

V550 AEMA Paving the Way...to the 21st Century

This video covers the applications and benefits of using asphalt emulsions.

V551 What's Hot Mix Asphalt

This video explains what hot mix asphalt is and its uses.

V552 Ultra-Thin Whitetopping: Today's Choice for Durable Pavement Overlays

This video shows an alternative to HMA for overlays. It provides benefits and a brief over view of the Ultra-Thin Whitetopping process.

V554 In Place Concrete Recycling System

This videotape explains the Paradigm in place concrete recycling process and its benefits.

V558 Understanding Superpave Mix Design

Produced in cooperation with the FHWA, this video explains the basics of Superpave material selection, laboratory compaction, and the required mix evaluation processes. This video is based on the national recommendations; however, IL DOT has made minor changes to the national recommendations.